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Unemployment Insurance and Employment Durations: Seasonal and Non-Seasonal Jobs

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Purpose

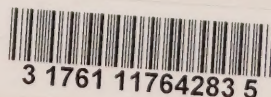
A central concern in the design of an Unemployment Insurance (UI) system is that it cause the minimum possible distortions in the labour market in the course of meeting its stated goals. This paper examines whether the UI system induces significant distortions in the length of job spells. In studying this issue, it is important to keep in mind the different goals of UI and the different groups of users. For our purposes, a key distinction is between seasonal and non-seasonal jobs.

Seasonal workers may use UI benefits on a regular basis and, thus, payments to them must be seen to be fulfilling a redistributional role rather than a pure insurance role. For non-seasonal workers, some element of redistribution may exist (and some may make regular use of UI benefits), but insurance against unforeseen unemployment spells may be an important function of UI. Risk averse workers will also place a different value on UI benefits if they provide income in an unemployment spell that is predicted perfectly in advance versus one that is unforeseen.

Finally, one might expect seasonal workers and firms to be able to more fully adapt their behaviour to the UI system. For all these reasons, evidence of significant UI effects on job durations would have different policy implications for seasonal and non-seasonal jobs, and we divide our study accordingly.

Theory

A further rationale for dividing our investigation between seasonal and non-seasonal jobs comes from theory. A straightforward model of labour supply decisions predicts that short jobs spells will be lengthened so the worker can meet the entrance requirement for UI. These job spells, one might predict, would be extended to only just meet the entrance requirement. At the same time, job spells that might be longer than the entrance requirement in the absence of UI may be shortened in response to the added income while unemployed, though they would never be shortened in response to less than the entrance requirement since then no benefits could be received. For both these reasons, one would predict a disproportionate number



of job spells will end just at the entrance requirement and that the probability that a spell ends in a given week will be higher for weeks following the entrance requirement relative to weeks before.

A further concentration of job endings is predicted for the point at which the worker qualifies for the maximum possible weeks of UI receipt. Before that point, extra weeks of work bring the added benefit of providing qualification for extra weeks of UI benefit receipt while, beyond that point, this added incentive to work disappears.

For workers who make their decisions within a one-year time frame, an additional concentration of job endings is predicted for the point at which the individual has qualified for just enough weeks of UI receipt to cover the remainder of the year, what we call the maximum year point. Beyond this point, individuals recognize that every week worked is one fewer week in which they can collect UI before the end of their time frame. While it might not be reasonable to assume that most workers make decisions based on such a fixed time frame, it does seem reasonable for seasonal workers. Seasonal workers might well see a penalty to not using UI benefits before the next season begins. Thus, we examine non-seasonal job spells to see whether there are concentrations of durations at the entrance requirement point and the point of qualification for maximum benefits and whether the probability of job termination jumps up for all weeks after the entrance requirement point is reached.

Evaluation Approach and Data

In short, we examine seasonal job spells for evidence of concentrations of durations at the entrance requirement and maximum year points and for evidence that the probability of job terminations jumps up beyond the entrance requirement point. One should note that while these predictions come from a model of labour supply, one can generate the same predictions from a model that includes firm decisions.

Our approach to this problem is to make use of differences in the UI program across UI regions in 1989 to identify the effects of UI on job durations. The entrance requirement, the point of qualification for maximum weeks of UI receipt and the maximum year point all varied across the 48 UI regions that existed in 1989 according to the unemployment rates in each. The entrance requirement in 1989 varied from 10 to 14 weeks according to the regional unemployment rate while the maximum entitlement and maximum year points varied with the length of regional extended benefits which itself varied with the regional unemployment rate.

We use a large sample of jobs initiated in 1989 taken from the Labour Market Activity Survey (LMAS), a large representative sample of Canadian workers. We were fortunate to gain access to a version of the LMAS in which the individual's place of residence is coded at the UI regional level rather than the province since regional variation in UI is at the heart of our approach.

Using a hazard function approach, we estimate the effects of the elements of the UI system mentioned above as well as the effects of other covariates.

Of prime importance among the other covariates is the unemployment rate measured at the Economic Region level. Since the differences in the UI parameters we are studying are triggered by differences in the regional unemployment rates, there is a danger that we will measure the effects of labour market differences across regions rather than the effects of the UI system. There were 70 Economic Regions in Canada in 1989. This means that our unemployment rate measure includes variation that will not directly trigger changes in UI parameters since this variation occurs below the UI region level. Thus, we are able to hold constant labour market differences while investigating UI system effects.

Key Findings

Our main results are as follows:

1. There is no evidence of an entrance requirement effect on job durations for seasonal jobs but there is evidence of an effect at the point at which workers qualify for enough

weeks of benefits to fill the remainder of a 52 week period. We estimate that as many as 1 in 50 seasonal job spells end at this "maximum year" point, specifically because it is the maximum year point. This is both statistically and economically significant. Further, while the probability of termination of a job increases once it passes the entrance requirement point, the main increase in this probability occurs after the job has lasted beyond the maximum year point. This may indicate significant tailoring of seasonal jobs to the UI system.

2. There is statistically significant evidence of concentrations of job spell durations at the entrance requirement point and at the point at which an individual has qualified for the maximum possible weeks of UI receipt for non-seasonal jobs. However, while these effects are statistically significant, they appear to be small in absolute terms, corresponding to changes in the probability of termination for a job of much less than 1 percent.

Biographical Notes

David A. Green is an Assistant Professor of Economics at the University of British Columbia. He completed his Ph.D at Stanford University in 1990. His main areas of research interest are the effects of Unemployment Insurance in the labour market, the impact of immigration policy and the adaptation of immigrants to the Canadian economy. More recently, he has also worked in the area of earnings and income distributions.

Timothy C. Sargent is a recent Ph.D graduate from the University of British Columbia. He is currently engaged by the Department of Finance in Ottawa as an economist.

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Copies of the full technical report (when finalised) and further copies of this summary are available from:

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